REMARKS

This Amendment and Response to Final Office Action is being submitted in response to the final Office Action mailed March 3, 2006. Claims 1-19 are pending in the Application. Claims 1-19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,412,652 ("Lu") in view of U.S. Patent No. 6,343,083 ("Mendelson").

In response to this rejection, Claims 1, 14, 18, and 19 have been amended to further clarify the subject matter which Applicants regard as the invention, without prejudice or disclaimer to continued examination on the merits. These amendments are fully supported in the Specification, Drawings, and Claims of the Application and no new matter has been added. Based upon the amendments, reconsideration of the Application is respectfully requested, without further search, in view of the following remarks.

Rejection of Claims 1-19 Under 35 U.S.C. 103(a) – Lu and Mendelson:

Claims 1-19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,412,652 ("Lu") in view of U.S. Patent No. 6,343,083 ("Mendelson").

In response to this rejection, Applicants again point out that, as indicated at page 8, lines 17-30, the present invention deals with and helps to maintain the integrity of, when possible and to the extent practicable, permanent sub-network connections ("P-SNC's"). Specifically:

> A [P-SNC] defines a hybrid of a permanent and sub-network connection. ***A P-SNC is characterized as being permanent in that, upon failure, the SNC is not torn down immediately and the resources associated therewith are not deallocated.*** (Emphasis Added). However, the P-SNC can be set up and torn down with signaling. A timer (e.g., timer block 251 in signaling unit 250) is associated with each P-SNC. ***The timer defines an amount of time that may expire prior to the tear down of a given connection after a failure.*** (Emphasis Added). Accordingly, a P-SNC is temporary in that, after the timer expires, the connection can be torn down and resources reallocated as appropriate. A P-SNC entry in the path specification table 260 can include a field that specifies the time out associated with tear down of the given P-SNC. Signaling unit 250 can

> initialize, at the detection of a failure along the P-SNC connection, a timer with a value as specified in the path specification table for a given P-SNC connection. After the time out has expired, signaling unit 250 can tear down the route and deallocate the resources dynamically without requiring the manual reconfiguration in nodes along the path defined by the route.

Thus, after a failure is detected, ***and in response to the failure***, a timer is triggered and used to provide a reasonable period of time during which the failure may be corrected before the associated route is torn down and the resources deallocated. This is explicitly claimed in independent Claims 1, 14, 18, and 19, all reciting elements/limitations related to P-SNC's, the detection of a failure, ***and the subsequent triggering of a timer***. For example, independent Claim 1 has been amended to recite:

> 1. A method for creating a permanent sub-network connection in a network of connected nodes includes, the method comprising:
>
> defining a route including a working path for a permanent sub-network connection in the network of nodes from an ingress node to an egress node;
>
> defining a time out period to be associated with the permanent sub-network connection ***and initiated in response to the detection of a failure in the permanent sub-network connection***, the time out period defining a time over which the failure in the permanent sub-network connection is permitted to be corrected prior to a tear down of the permanent sub-network connection;
>
> provisioning the route;
>
> distributing a route description to each node along the route from the ingress node to the egress node; and
>
> configuring each node along the route in accordance with the route description to provide data traffic services from the ingress node to the egress node.

These elements/limitations, ***and especially the element/limitation related to the triggering of a time in response to the detection of a failure***, are not taught or suggested by Lu or Mendelson.

Even assuming, arguendo, that Lu deals with P-SNC's, it would not be obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Mendelson with those of Lu. Mendelson implicitly and explicitly teaches away from such a combination as it deals with SNC's that are, by definition, temporary and short-lived. The

connections of Mendelson are necessarily set up and torn down at each call. There is no detection or consideration of failure because of this expected, planned, and inevitable tear down. Only state of activity, and not failure, is considered.

Referring specifically to the portions of Mendelson cited by Examiner (column 16, lines 5-29):

> ***The ANC 250 periodically queries the ATU-R 222 to determine the state of the activity time-out counter***. (Emphasis Added). At some point, in step 526, the ATU-R 222 reports that a time-out has occurred. In response to this report, the ANC 250, in step 528, causes the ATM network 210 to tear down the VC 266, thereby releasing network resources. The ANC 250, in one embodiment, initiates the tearing down of the VC 266 by sending a RELEASE message to both ATM endpoints, each of which responds by sending a RELEASE COMPLETE message. Upon receipt of the RELEASE COMPLETE message, the network frees any resources associated with the VC 266.
>
> ***It may be that the time-out occurred because the PC 218 no longer needs to communicate with the server 266 in ISP 230***. (Emphasis Added). In this case, the tear-down is similar to the ANC 250 "hanging up the phone" for the two data network endpoints. ***On the other hand, it may be that the PC 218 still wishes to communicate with the server 236***. (Emphasis Added). In this case, at some later time, higher level software in the PC 218 will once again begin passing messages down the protocol stack. When messages begin to reach the MAC layer 304 (FIG. 3), the PC 218 determines that it no longer has a valid translation from the destination network address to the destination MAC address. It therefore issues an IARP request on the LAN 220, and the process of FIG. 5 repeats from step 514. ***[The later case is not equivalent to a failure, rather it is equivalent to "calling again" after an expected, planned, and inevitable tear down]***. (Notation Added).

Thus, the timer of Mendelson is wholly incompatible with the P-SNC's of Lu and the present invention, and a time-out period providing for the possible remediation of a failure is not disclosed, taught, or suggested. As result, there is no motivation whatsoever for the Lu-Mendelson combination.

Mendelson goes on to further justify the above assertions at column 16, lines 30-67:

> The time-out period of the ATU-R 222 inactivity counter can be a fixed value in one embodiment. In another embodiment, the time-out period is set manually depending on the type of client device (such as PC 218) which will be transmitting the IARP requests. For example, it is known that the Microsoft Windows95.RTM. TCP/IP protocol stack ages out its address translation cache after a period of two minutes of non-reference. Thus, if it is known that the client device 218 will be a Windows95 PC, then the ANC 250 can time out the connection after, for example, five minutes. ***Assuming all client devices which utilize ATM endpoint 222 use the Windows95 TCP/IP protocol stack, using five minutes as the inactivity time-out for ATM endpoint 222 guarantees that should the VC 266 be torn down as a result of an inactivity time-out, the client device 218 will always transmit another IARP request before it transmits any new messages of any kind that are addressed to the server 236.*** (Emphasis Added). Even if the subscriber changes the software on client device 218, or adds other potential sources of messages destined for server 236, the inactivity time-out period is still chosen to be very likely to exceed whatever age-out period the new software or new devices employ for their network-to-MAC translation caches. ***Thus, for a connection time-out period to be "chosen to be very likely to exceed" the client device's cache age-out periods, it is not necessary that the connection time-out period always succeed in exceeding the client device's cache age-out periods, but the effort is made to succeed most of the time.*** (Emphasis Added). That is, the effort is made to succeed with at least a significant probability, based on information available at the time the choice is made for the connection time-out period. In addition, as used herein, the term "likely" to exceed includes, as a special case, an embodiment in which the connection time-out period is guaranteed to exceed the client device cache age-out period.

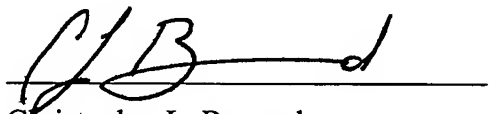
Therefore, Applicants submit that the rejection of Claims 1-19 under 35 U.S.C. 103(a) has now been traversed, and respectfully request that this rejection be withdrawn and the claims be allowed.

CONCLUSION

Applicants would like to thank Examiner for the attention and consideration accorded the present Application. Should Examiner determine that any further action is necessary to place the Application in condition for allowance, Examiner is encouraged to contact undersigned Counsel at the telephone number, facsimile number, address, or email address provided below. It is not believed that any fees for additional claims, extensions of time, or the like are required beyond those that may otherwise be indicated in the documents accompanying this paper. However, if such additional fees are required, Examiner is encouraged to notify undersigned Counsel at Examiner's earliest convenience.

Respectfully submitted,

Date: May 02, 2006



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